

CLAIMS

1. A printer for printing document information onto one or more of a plurality of print areas, each of the print areas including identity data indicative of identity information which differentiates the print area from others of the plurality, the printer including at least one sensor for sensing the identity information of the one or more print areas.
2. The printer of claim 1 wherein the identity data is represented on the print area in a coded form and the printer includes a decoder which receives coded data from the at least one sensor and outputs decoded data representing at least the identity data or at least the identity information.
3. The printer of claim 1 wherein each identity information is represented on the print area by at least two discrete items of data and the decoder outputs decoded data representing at least the identity information after receiving said at least two separate items of data.
4. The printer of claim 1 wherein said at least one sensor is positioned to sense said identity data after printing of the document information on the respective print area has commenced.
5. The printer of claim 1 wherein said at least one sensor is positioned to sense said identity data before printing of the document information on the respective print area has commenced.
6. The printer of claim 1 wherein said at least one sensor is positioned to sense said identity data during printing of the document information on the respective print area.

7. The printer of claim 1 further including a transmitter for transmitting information to a computer system.
- 5 8. The printer of claim 1 further including a transmitter which transmits the identity data or identity information to the computer system.
9. The printer of claim 1 further including means to detect failure to correctly print document information onto a print area and for generating a void signal on detection of
10 said failure, the transmitter transmitting said void signal to the computer system.
10. The printer of claim 1 wherein said document information is based at least partially on document data received from a computer system.
- 15 11. The printer of claim 1 wherein said printer derives and transmits identity data or identity information associated with a print area to a computer system prior to receiving document data associated with said print area.
12. The printer of claim 1 wherein said printer derives and transmits identity data or
20 identity information associated with a print area to a computer system prior to receiving document data associated with said print area and said document data is based at least partially on the identity information of the print area.
13. The printer of claim 1 operable to over-print a print area having existing
25 document information to render the existing document information unreadable
14. The printer of claim 1 wherein the printer includes a print mechanism for printing on at least two of print areas substantially simultaneously.

15. The printer of claim 1 wherein the at least one sensor is selected from an image sensor and a magnetic sensor and a chemical sensor.

5 16. The printer of claim 1 wherein the printer generates at least some of the information printed.

17. The printer of claim 1 wherein the printer generates print information indicative of the information printed.

10

18. The printer of claim 1 further including a user interface to enable a user to input identity information into the printer.

19. A system for printing, the system including:

15

a) a computer system;

b) a printer for printing document information onto a print area, the print area including identity data indicative of identity information which differentiates the print area from other print areas including identity data, the printer including:

i) at least one sensor for sensing the identity data of the print area;

20

ii) a transmitter for transmitting data to the computer system, the data selected from one of the following:

(1) the identity information,

(2) data representative of the identity information;

(3) the identity data, or

25

(4) data representative of the identity data,

the computer system including:

i) a receiver for receiving transmitted data, and

ii) means for generating association data representative of an association between the document information and the identity information.

iii) memory for storing the association data.

5 20. The system of claim 19 wherein the identity data is represented on the print area in a coded form and the printer includes a decoder which receives coded data from the at least one sensor and outputs decoded data representing at least the identity data or at least the identity information.

10 21. The system of claim 19 wherein each identity information is represented on the print area by at least two physically discrete items of identity and the decoder outputs decoded data representing at least the identity information after receiving said at least two separate items of data.

15 22. The system of claim 19 wherein said at least one sensor is positioned to sense said identity data after printing of the document information on the respective print area has commenced.

20 23. The system of claim 19 wherein said at least one sensor is positioned to sense said identity data before printing of the document information on the respective print area has commenced.

24. The system of claim 19 wherein said at least one sensor is positioned to sense said identity data during printing of the document information on the respective print
25 area.

25. The system of claim 19 further including means to detect failure to correctly print document information onto a print area and for generating a void signal on

detection of said failure to the computer system.

26. The system of claim 19 wherein said document information is based at least partially on document data received from the computer system.

5

27. The system of claim 19 wherein said printer derives and transmits identity data or identity information associated with a print area to the computer system prior to receiving document data associated with said print area.

10 28. The system of claim 19 wherein said document data is based at least partially on the identity information.

29. The system of claim 19 operable to over-print a print area having existing document information to render the existing document information unreadable.

15

30. The system of claim 29 wherein the association data is modified to include information indicating the document information of the print area is unreadable.

20 31. The system of claim 29 operable to over-print a print area having existing document information to render the existing document information unreadable and to delete the association data associated with the print area.

25 32. The system of claim 29 operable to over-print a print area having existing document information to render the existing document information unreadable and to delete the association data associated with the print area and the document data associated with the association data.

33. The system of claim 19 wherein the printer includes a print mechanism for

printing on at least two print areas simultaneously.

34. The system of claim 19 wherein the at least one sensor is selected from an image sensor and a magnetic sensor.

5

35. The system of claim 19 wherein the printer generates print information indicative of the information printed.

10 36. The system of claim 19 further including a user interface to enable a user to input identity information into the system.

37. A method of associating document information printed on one of a plurality of print areas with identity information which differentiates the print area from others of the plurality, the method including:

15 a) providing a print area including identity data indicative of the identity information;

b) providing a printer for printing said document information, the printer including:

20 i) at least one sensor for sensing the identity data;

ii) a print mechanism for printing the document information, and

iii) a print area path which print areas to be printed follow, the print area path passing adjacent the sensor and through the print mechanism;

c) passing the print area along the print area path and through the print mechanism and:

25 i) sensing the identity data of the print area, and

ii) printing the document information onto the print area;

d) deriving the identity information from the sensed identity data, and

e) creating association data, associating the identity information with the document information.

38. The method of claim 37 wherein the identity data is carried by the print area in
5 a coded data form and sensing the identity data includes sensing the coded data and decoding the coded data to extract the identity data.

39. The method of claim 37 further including providing document data to the printer, said document information being at least partially based on the document data.

10

40. The method of claim 37 wherein the identity data is sensed before printing of the document information has commenced.

15

41. The method of claim 37 wherein the identity data is sensed before printing of the document information has commenced and the document data is at least partially based on the identity information.

42. The method of claim 37 wherein the identity data is sensed after printing of the document information has commenced.

20

43. The method of claim 37 wherein the identity data is sensed while the document information is being printed.

44. The method of claim 37 further including detecting failure to correctly print
25 document information onto a print area and for associating a void flag with the identity information.

45. The method of claim 37 wherein the print mechanism repeatedly prints the

same information on different print areas and includes an index signal generator to indicate a location in each of the repeats.

46. The method of claim 37 wherein the plurality of print areas are located on one
5 or more substrates and at least one surface of each substrate constitutes a separate print area.

47. The method of claim 37 wherein the plurality of print areas are located on one
10 or more substrates and at least one surface of each substrate constitutes a plurality of separate print areas.

48. The method of claim 37 wherein the plurality of print areas are located on one
or more substrates, at least one surface of each substrate constitutes a plurality of
15 separate print area and wherein at least one dimension of each print area is of variable size, the size of the at least one dimension defined during the printing process at least partially in response to the document data.

49. The method of claim 37 wherein a print area includes at least one tag which
includes a unique code.
20

50. The method of claim 37 wherein each print area includes a plurality of tags,
each of which includes a unique code, each of the unique codes including the identity
data.

51. The method of claim 37 wherein a print area includes a plurality of tags, each of
25 which includes a unique code, the identity information of the print area being derived from at least two of the unique codes.

52. The method of claim 37 wherein a print area is defined by information encoded by two or more separate tags.

53. The method of claim 37 wherein each tag is also indicative of a reference point
5 or zone within the print area.

54. The method of claim 37 including over-printing a print area having existing document information to render the existing document information unreadable.

10 55. The method of claim 37 including modifying the association data to include information indicating the document information of the print area is unreadable.

56. The method of claim 37 including over-printing a print area having existing document information to render the existing document information unreadable and
15 deleting the association data associated the print area.

57. The method of claim 379 including over-printing a print area having existing document information to render the existing document information unreadable and to deleting the association data associated the print area and the document data associated
20 with the association data.

58. The method of claim 37 wherein the print mechanism includes a laser print engine, a LED print engine, an ink jet print engine, a dot matrix print engine, a thermal dye sublimation print engine, a roto gravure print mechanism or a silkscreen printer.

25